

Amendments to the Specification:

The following amendments to the Specification refer to the published Specification as disclosed in U.S. Publication No. 20050032673

Please delete Paragraph [0041] and substitute therefore:

[0041] FIG. 1 is a schematic showing a mechanism of action of N-terminally truncated galectin-3 whereby the truncated form of the protein inhibits the binding of intact galectin-3 to carbohydrate ligands and thereby also inhibits the multimerization and cross-linking activities of galectin-3; (A) binding and effect of full length galectin-3; (B) binding and effect of N-terminally truncated galectin-3;

Please delete Paragraph [0044] and substitute therefore:

[0044] FIG. 4 presents a pharmacokinetic analysis of the intramuscular administration of galectin-3C determined at 2-12 hours; mice were injected with ³⁵S-labeled galectin-3C and at the indicated time points the animals were sacrificed and serum and levels of radioactivity were determined; data are presented as the mean and standard deviation of the radioactive counts detected in five mice at each time point; the inset shows the pharmacokinetic analysis of the intravenous and intramuscular administration of galectin-3C was determined at eight hours; *p=0.033 when compared with cpm associated with blood cells (t-test); (A) serum elimination half-life; (B) elimination half-life of the blood cellular fraction;

Please delete Paragraph [0050] and substitute therefore:

[0050] FIG. 10 is a series of photographs showing the efficacy evaluation of N-terminally truncated galectin-3 against the GFP-Gene Transfected Human Breast Cancer MDA-MB435 in a mouse model; (A) vehicle only; (B) with galectin-3; (C) with galectin-3C;

Please delete Paragraph [0051] and substitute therefore:

[0051] FIGS. 11 ~~A-D~~ are shows photographs illustrating ~~showing~~ a representative histopathology of primary tumor and lymph node, liver and lung metastasis in mice treated with the control;

Please delete Paragraph [0052] and substitute therefore:

[0052] FIGS. 12 ~~A-D~~ ~~are~~ shows photographs illustrating ~~showing~~ a representative histopathology of primary tumor and lymph node, lung, and liver metastasis in mice treated with the control;

Please delete Paragraph [0053] and substitute therefore:

[0053] FIGS. 13 ~~A-C~~ ~~are~~ shows photographs illustrating ~~showing~~ a representative histopathology of primary tumor and lymph node, and lung metastasis in mice treated with N-terminally truncated galectin-3;

Please delete Paragraph [0054] and substitute therefore:

[0054] FIGS. 14 ~~A-C~~ ~~are~~ shows photographs illustrating ~~showing~~ a representative histopathology of primary tumor, lymph node, and lung metastasis in mice treated with N-terminally truncated galectin-3;

Please delete Paragraph [0055] and substitute therefore:

[0055] FIGS. 15 ~~A-C~~ ~~are~~ shows photographs illustrating ~~showing~~ a representative histopathology of primary tumor, lymph node, and lung metastasis in mice treated with galectin-3;

Please delete Paragraph [0075] and substitute therefore:

[0075] The minimal lactose-binding domain of human galectin-3 was extensively mapped by use of a bacteriophage y surface expression vector (9). In a study by Seetharaman et al., (8), the detailed X-ray crystal structure of the carbohydrate recognition domain complexed with N-acetyllactosamine was disclosed. Such studies reveal the portions of intact galectin-3 (SEQ ID NO:3~~SEQ ID NO:2~~) that are required for carbohydrate binding. The information can be used to help define the minimal portion of SEQ ID NO:3~~SEQ ID NO:2~~) that is required for binding to carbohydrates. These portions of SEQ ID NO:3~~SEQ ID NO:2~~) can be helpful to include in a molecule that can function as an inhibitor of galectin-3 for treatment of cancer.

Please delete Paragraph [0081] and substitute therefore:

[0081] The exact sequences of the set of the polypeptides based on SEQ ID NO:3~~SEQ ID NO:2~~ that can bind to carbohydrates- such as lactose but that do not demonstrate cooperativity in

carbohydrate binding, hemagglutination, and homotypic aggregation are defined by studies such as those cited above. The data provided herein establishes that N-terminally truncated galectin-3 polypeptides that possess these physical characteristics can be used to treat diseases including cancer by reducing tumorigenicity and metastasis. Thus, by correlating function with activity other polypeptide fragments of the structure shown in SEQ ID NO:3~~SEQ ID NO:2~~ can be created for use in treating cancer and other diseases. The treatment described herein uses any one or more of a set of polypeptides that includes amino acid sequences of SEQ ID NO:3~~SEQ ID NO:2~~ beginning with any of the amino acid residues from Tyr-63 through Arg-129, and that extends at least as far as any of the amino acid residues from Asp-241 through Ile-250. The carbohydrate binding ability of the N-terminally truncated galectin-3 proteins can be determined by various methods such as fluorescence polarization (88). Lack of ability of the protein fragments to induce homotypic aggregation of cancer cells expressing galectin-3 or hemagglutination of red blood cells can easily be determined to demonstrate lack of cross-linking ability (34,89).

Please delete the portion of Paragraph [0119] above the amino acid sequence listing, and substitute therefore:

[0119] The amino acid sequence of the intact recombinant human galectin-3 described by Oda et al (7) (GenBank Accession No. M36682, incorporated herein by reference) is designated as SEQ ID NO. 3, and its sequence is as follows:

Please delete Paragraph [0120] and substitute therefore:

[0120] A plasmid containing the complete galectin-3 coding sequence can be used as a template in a PCR reaction using primers designed to amplify the desired fragment.

5 Forward primer: 5' GACGACGACAAGGGCGCCCCCTGCTGGG 3' (SEQ ID NO:6)

Reverse primer: 5' GAGGAGAAGCCCGGTTTATATCATGGTATA 3' (SEQ ID NO:7)

Please delete Paragraph [0189] and substitute therefore:

[0189] Importantly, it was found that N-terminally truncated galectin-3 also reduced tumor volume and tumor weight in the primary tumors. The mechanism of action of extracellular N-terminally truncated galectin-3 was likely to be at least partly due to: 1) decreased homotypic aggregation and adhesion of breast cancer cells to extracellular matrices and endothelial cells; 2)

decreased chemotaxis (galectin-3 itself is a chemotactic factor) (57); or 3) anoikis (apoptosis induced by loss of cell anchorage) (49) ~~[Kim, 1999 #955]~~.

Please delete Paragraph [0199] and substitute therefore:

[0199] A plasmid containing the complete galectin-3 coding sequence is used as a template in a PCR reaction using primers designed to amplify the desired fragment.

12 Forward primer: 5' GACGACGACAAGTGCGGCGCCCCTGCTGGG 3' (SEQ ID NO:6)

Reverse primer: 5' GAGGAGAAGCCCGGTTTATATCATGGTATA 3' (SEQ ID NO:7)

Please delete originally filed Page 82 of the Specification.